

Claims

[1] An analytical test piece comprising a carrier, and a reaction section containing a detection component, the reaction section being provided on the surface and/or in the interior of the carrier, wherein in use, when a sample containing an analyte is introduced to the surface of the carrier, the analyte comes into contact and reacts with the detection component contained in the reaction section, to thereby generate a detectable substance (signal substance) or to exhibit a detectable property (signal property), and

wherein the amount of the detection component contained in the reaction section is continuously increased or decreased from one end of the reaction section to another end thereof.

[2] An analytical test piece as described in claim 1, wherein the detection component contained in the reaction section is formed of a plurality of species which are isolated or separated from one another on the reaction section, and the amount of each of the detection component species is continuously increased or decreased from one end of the reaction section to another end thereof.

[3] An analytical test piece as described in claim 1 or 2, wherein the detection component contained in the reaction section is in the form of an aggregate of spots (dots) which are provided in a predetermined arrangement pattern (spot pitch).

[4] An analytical test piece as described in claim 3,
wherein the amount of the detection component contained in
the spots (dots) constituting the arrangement pattern is
continuously increased or decreased from one end of the
5 reaction section to another end thereof.

[5] An analytical test piece as described in claim 3 or 4,
wherein the spots (dots) constituting the arrangement pattern
have an arrangement density which is continuously increased
or decreased from one end of the reaction section to another
10 end thereof.

[6] An analytical test piece as described in any of claims 3
to 5, wherein the size of the spots (dots) constituting the
arrangement pattern is continuously increased or decreased
from one end of the reaction section to another end thereof.

15 [7] An analytical test piece as described in any of claims 3
to 6, wherein the amount of the detection component contained
in the spots (dots) constituting the arrangement pattern, the
amount being measured in a thickness direction of the carrier,
is continuously increased or decreased from one end of the
20 reaction section to another end thereof.

[8] An analytical test piece comprising a carrier, and a
reaction section containing a detection component, the
reaction section being provided on the surface and/or in the
interior of the carrier, wherein in use, when a sample
25 containing an analyte is introduced to the surface of the
carrier, the analyte comes into contact and reacts with the
detection component contained in the reaction section, to

thereby generate a detectable substance (signal substance) or to exhibit a detectable property (signal property), and

wherein the reaction section is formed of a plurality of divided reaction sites, and the amount of the detection component contained in each reaction site of the reaction section is increased or decreased from one end of the reaction section to another end thereof in a stepwise manner when the reaction sites are adjacent to one another, or in a fragmentary manner when the reaction sites are isolated or separated from one another.

[9] An analytical test piece as described in claim 8, wherein the detection component contained in the reaction section is formed of a plurality of species which are isolated or separated from one another on the reaction section; and the amount of each of the detection component species, which respectively correspond to a plurality of the reaction sites, is increased or decreased from one end of the reaction section to another end thereof in a stepwise manner when the reaction sites are adjacent to one another, or in a fragmentary manner when the reaction sites are isolated or separated from one another.

[10] An analytical test piece as described in claim 8 or 9, wherein the detection component contained in the reaction section is in the form of an aggregate of spots (dots) which are provided in a predetermined arrangement pattern (spot pitch).

[11] An analytical test piece as described in claim 10,

wherein the amount of the detection component contained in the spots (dots) constituting the arrangement pattern is increased or decreased, in a plurality of the divided reaction sites constituting the reaction section, from one end of the reaction section to another end thereof in a continuous, stepwise manner or in a discontinuous, fragmentary manner.

[12] An analytical test piece as described in claim 10 or 11, wherein the spots (dots) constituting the arrangement pattern have an arrangement density which is increased or decreased, in a plurality of the divided reaction sites constituting the reaction section, from one end of the reaction section to another end thereof in a continuous, stepwise manner or in a discontinuous, fragmentary manner.

[13] An analytical test piece as described in any of claims 10 to 12, wherein the size of the spots (dots) constituting the arrangement pattern is increased or decreased, in a plurality of the divided reaction sites constituting the reaction section, from one end of the reaction section to another end thereof in a continuous, stepwise manner or in a discontinuous, fragmentary manner.

[14] An analytical test piece as described in any of claims 10 to 13, wherein the amount of the detection component contained in the spots (dots) constituting the arrangement pattern, the amount being measured in a thickness direction of the carrier, is increased or decreased, in a plurality of the divided reaction sites constituting the reaction section,

from one end of the reaction section to another end thereof
in a continuous, stepwise manner or in a discontinuous,
fragmentary manner.

[15] An analytical test piece as described in any of claims
5 1 to 14, wherein the carrier is a fibrous carrier or a porous
carrier.

[16] An analytical test piece as described in any of claims
1 to 15, wherein the reaction section containing the
detection component is provided on the surface and/or in the
10 interior of the carrier through the ink-jet method.